

METHODS OF FORMING MONOLAYERS USING STRIPPED PHAGE AND USES THEREOF

ABSTRACT OF THE DISCLOSURE

Methods and compositions for identifying and characterizing the affinity of one or more ligands of a peptide are provided. In particular, a “stripped phage ligand sensor device” (SPLSD) is provided comprising a sensor coupled to a binding element of
5 interest. Binding elements of the invention comprise phage which in most embodiments express a peptide of interest on the phage surface. Assays using the SPLSD allow detection and quantitation of ligands. Also provided are improved methods for forming monolayers using phage. In particular, methods for the formation of monolayers using “stripped phage” are provided. Further provided are monolayers and Langmuir-Blodgett
10 films formed by the methods of the invention as well as substrates having deposited thereon the films of the invention. The monolayers, films and substrates of the invention are useful as components of biosensors and/or chemosensors.

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